

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions:

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) A method comprising: ~~The method of claim 2 wherein~~  
~~the at least one iteration of the reporting task comprises:~~

reporting a spanning tree to a distributed dictionary for a plurality of nodes  
comprising a network, said plurality of nodes to adopt the spanning tree from the  
distributed dictionary in a coordinated manner to avoid a transient topology loop  
in the network, wherein reporting the spanning tree comprises:

performing at least one iteration of a reporting task to disable links  
to be removed from among the plurality of nodes, wherein the at least one  
iteration of the reporting task comprises:

identifying the links to be removed based on a comparison  
of the spanning tree to a previous spanning tree;

removing the links to be removed from the previous  
spanning tree to generate a modified spanning tree; and

registering the modified spanning tree to the distributed  
dictionary; and

performing at least one additional iteration of the reporting task to enable links to be added among the plurality of nodes only after the links to be removed have been disabled.

<sup>2</sup>  
~~4.~~ (Original) The method of claim <sup>1</sup>~~3~~ wherein registering the modified spanning tree comprises:

identifying an incarnation identifier for the previous spanning tree;  
advancing the incarnation identifier; and  
combining the incarnation identifier with the modified spanning tree.

<sup>3</sup>  
~~5.~~ (Original) The method of claim <sup>1</sup>~~3~~ wherein registering the modified spanning tree comprises:

storing the modified spanning tree to local memory; and  
multicasting the spanning tree to a remainder of the plurality of nodes.

<sup>4</sup>  
~~6.~~ (Currently Amended) ~~The method of claim 2~~ A method comprising:  
reporting a spanning tree to a distributed dictionary for a plurality of nodes comprising a network, said plurality of nodes to adopt the spanning tree from the distributed dictionary in a coordinated manner to avoid a transient topology loop in the network, wherein reporting the spanning tree comprises:  
performing at least one iteration of a reporting task to disable links to be removed from among the plurality of nodes; and

\_\_\_\_\_ performing at least one additional iteration of the reporting task to  
enable links to be added among the plurality of nodes only after the links to be  
removed have been disabled, wherein the at least one additional iteration of the  
reporting task comprises:

\_\_\_\_\_ identifying the links to be added based on a comparison of  
the spanning tree to a previous spanning tree;

\_\_\_\_\_ verifying there are no remaining links to be removed;

\_\_\_\_\_ verifying that the plurality of nodes are synchronized with  
respect to adoption of the previous spanning tree;

\_\_\_\_\_ adding the links to be added to the previous spanning tree to  
generate a modified spanning tree; and

\_\_\_\_\_ registering the modified spanning tree to the distributed  
dictionary.

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7. (Original) The method of claim 6 wherein verifying there are no remaining  
links comprises:

subtracting a set of links defined by the spanning tree from a set of links  
defined by the previous spanning tree to provide a result;

verifying that the result is a null set;

accessing a set of acknowledgements from the plurality of nodes  
registered in the distributed dictionary; and

verifying that an incarnation identifier for each acknowledgement in the set  
of acknowledgements is equal.

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8. (Currently Amended) A method comprising:

reporting a spanning tree to a distributed dictionary for a plurality of nodes comprising a network, said plurality of nodes to adopt the spanning tree from the distributed dictionary in a coordinated manner to avoid a transient topology loop in the network, wherein reporting the spanning tree comprises:

performing at least one iteration of a reporting task to disable links to be removed from among the plurality of nodes; and

performing at least one additional iteration of the reporting task to enable links to be added among the plurality of nodes only after the links to be removed have been disabled. ~~The method of claim 2 wherein prior to performing~~

a next iteration of the reporting task, the method further comprises:

accessing acknowledgements from the plurality of nodes in the distributed dictionary, said acknowledgements including incarnation identifiers for a most current spanning tree adopted by respective ones of the plurality of nodes;

identifying a lowest incarnation identifier stored in the distributed dictionary;

comparing the lowest incarnation identifier to an incarnation identifier of a most recently reported spanning tree; and

initiating the next iteration of the reporting task if the lowest incarnation identifier is equal to the incarnation identifier of the most recently reported spanning tree.

9. (Cancelled)

10. (Currently Amended) A method comprising:

adopting a spanning tree from a distributed dictionary in a manner  
coordinated throughout a plurality of nodes comprising a network to avoid a  
transient topology loop in the network; ~~The method of claim 9 wherein adopting~~  
the spanning tree comprises:

\_\_\_\_\_ identifying the spanning tree as a new spanning tree in the  
distributed dictionary;

\_\_\_\_\_ extracting ports from the new spanning tree corresponding to a  
particular node;

\_\_\_\_\_ disabling any ports at the particular node not extracted from the  
new spanning tree; and

\_\_\_\_\_ enabling any ports at the particular node after disabling any ports  
not extracted from the new spanning tree.

11. (Currently Amended) ~~The method of claim 9 further~~ claim 10 further  
comprising:

acknowledging an adoption of the spanning tree.

<sup>9</sup>  
12. (Original) The method of claim <sup>8</sup>~~11~~ wherein acknowledging adoption of the spanning tree comprises:

registering an incarnation identifier of a most currently adopted spanning tree to the distributed dictionary.

<sup>10</sup>  
13. (Original) The method of claim <sup>7</sup>~~10~~ wherein identifying the spanning tree as the new spanning tree comprises:

receiving the spanning tree at the particular node, said spanning tree including an incarnation identifier;

retrieving an incarnation identifier for an entry in the distributed dictionary corresponding to the spanning tree;

comparing the incarnation identifier of the spanning tree to the incarnation identifier for the entry; and

identifying the spanning tree as a new spanning tree if the incarnation identifier for the entry is older than the incarnation identifier for the spanning tree.

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

11  
17. (Currently Amended) An article comprising:

a machine readable storage medium having stored thereon executable instructions to implement reporting a spanning tree to a distributed dictionary for a plurality of nodes comprising a network, said plurality of nodes to adopt the spanning tree from the distributed dictionary in a coordinated manner to avoid a transient topology loop in the network, wherein the reporting the spanning tree comprises:

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Amended.  
performing at least one iteration of a reporting task to disable links to be removed from among the plurality of nodes, The article of claim 16 wherein the at least one iteration of the reporting task comprises:

identifying the links to be removed based on a comparison of the spanning tree to a previous spanning tree;

removing the links to be removed from the previous spanning tree to generate a modified spanning tree; and

registering the modified spanning tree to the distributed dictionary; and

performing at least one additional iteration of the reporting task to enable links to be added among the plurality of nodes only after the links to be removed have been disabled.

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18. (Original) The article of claim 17 wherein registering the modified spanning tree comprises:

identifying an incarnation identifier for the previous spanning tree;

advancing the incarnation identifier; and

combining the incarnation identifier with the modified spanning tree.

<sup>13</sup>  
10. (Original) The article of claim <sup>11</sup>~~17~~ wherein registering the modified spanning tree comprises:

storing the modified spanning tree to local memory; and

multicasting the spanning tree to a remainder of the plurality of nodes.

<sup>14</sup>  
20. (Currently Amended) An article comprising:

a machine readable storage medium having stored thereon executable instructions to implement reporting a spanning tree to a distributed dictionary for a plurality of nodes comprising a network, said plurality of nodes to adopt the spanning tree from the distributed dictionary in a coordinated manner to avoid a transient topology loop in the network; wherein reporting the spanning tree comprises:

performing at least one iteration of a reporting task to disable links to be removed from among the plurality of nodes; and

performing at least one additional iteration of the reporting task to enable links to be added among the plurality of nodes only after the links to be removed have been disabled. ~~The article of claim 16 wherein the at least one~~

~~additional iteration of the reporting task comprises:~~

~~identifying the links to be added based on a comparison of the spanning tree to a previous spanning tree;~~



\_\_\_\_\_ verifying there are no remaining links to be removed;  
\_\_\_\_\_ verifying that the plurality of nodes are synchronized with  
respect to adoption of the previous spanning tree;  
\_\_\_\_\_ adding the links to be added to the previous spanning tree to  
generate a modified spanning tree; and  
\_\_\_\_\_ registering the modified spanning tree to the distributed  
dictionary.

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21. (Original) The article of claim <sup>14</sup>20 wherein verifying there are no remaining  
links comprises:

subtracting a set of links defined by the spanning tree from a set of links  
defined by the previous spanning tree to provide a result;

verifying that the result is a null set;

accessing a set of acknowledgements from the plurality of nodes  
registered in the distributed dictionary; and

verifying that an incarnation identifier for each acknowledgement in the set  
of acknowledgements is equal.

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22. (Currently Amended) An article comprising:

a machine readable storage medium having stored thereon executable  
instructions to implement reporting a spanning tree to a distributed dictionary for  
a plurality of nodes comprising a network, said plurality of nodes to adopt the  
spanning tree from the distributed dictionary in a coordinated manner to avoid a

transient topology loop in the network, wherein reporting the spanning tree comprises:

\_\_\_\_\_ performing at least one iteration of a reporting task to disable links to be removed from among the plurality of nodes; and

\_\_\_\_\_ performing at least one additional iteration of the reporting task to enable links to be added among the plurality of nodes only after the links to be removed have been disabled. ~~The article of claim 15~~ wherein prior to performing a next iteration of the reporting task, the executable instructions further implement:

\_\_\_\_\_ accessing acknowledgements from the plurality of nodes in the distributed dictionary, said acknowledgements including incarnation identifiers for a most current spanning tree adopted by respective ones of the plurality of nodes;

\_\_\_\_\_ identifying a lowest incarnation identifier stored in the distributed dictionary;

\_\_\_\_\_ comparing the lowest incarnation identifier to an incarnation identifier of a most recently reported spanning tree; and

\_\_\_\_\_ initiating the next iteration of the reporting task if the lowest incarnation identifier is equal to the incarnation identifier of the most recently reported spanning tree.

[ 23. (Cancelled)

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24. (Currently Amended) An article comprising:

a machine readable storage medium having stored thereon executable instructions to implement adopting a spanning tree from a distributed dictionary in a manner coordinated throughout a plurality of nodes comprising a network to avoid a transient topology loop in the network. ~~The article of claim 23 wherein adopting the spanning tree comprises:~~

\_\_\_\_\_ identifying the spanning tree as a new spanning tree in the distributed dictionary;

\_\_\_\_\_ extracting ports from the new spanning tree corresponding to a particular node;

\_\_\_\_\_ disabling any ports at the particular node not extracted from the new spanning tree; and

\_\_\_\_\_ enabling any ports at the particular node after disabling any ports not extracted from the new spanning tree.

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25. (Currently Amended) ~~The article of claim 23 wherein~~ claim 24 wherein the executable instructions further implement:

acknowledging an adoption of the spanning tree.

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26. (Original) The article of claim ~~25~~ <sup>18</sup> wherein acknowledging adoption of the spanning tree comprises:

registering an incarnation identifier of a most currently adopted spanning tree to the distributed dictionary.

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(Original) The article of claim wherein identifying the spanning tree as the new spanning tree comprises:

receiving the spanning tree at the particular node, said spanning tree including an incarnation identifier;

retrieving an incarnation identifier for an entry in the distributed dictionary corresponding to the spanning tree;

comparing the incarnation identifier of the spanning tree to the incarnation identifier for the entry; and

identifying the spanning tree as a new spanning tree if the incarnation identifier for the entry is older than the incarnation identifier for the spanning tree.

28. (Cancelled)

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